

Og 232618

#### ABSTRACT OF THE DISCLOSURE

The invention is intended to increase the density for mounting the semiconductor chips on a memory-module, to increase the capacity of the memory-module, and to realize the memory-module capable of coping with high-speed buses. The memory-module comprises a plurality of WPPs having protruded terminals as external terminals and wiring portions for expanding the pitch among the protruded terminals to be wider than the pitch among the bonding electrodes of semiconductor chips, TSOPs having semiconductor chips, outer leads as external terminals, and are mounted via the outer leads that are electrically connected to the bonding electrodes of the semiconductor chips, and a module board supporting the WPPs and the TSOPs, wherein the WPPs and the TSOPs are mounted by the simultaneous reflowing in a mixed manner on the module board.

20